at a time, they must be pushed up against the locating pins by hand from two sides, and the clamping strap must be depended upon to clamp them down against the pressure of the cut, and at the same time prevent them from moving side or endways. If the accuracy of the location of the holes is important, but one piece at a time should be drilled.

Examples of Open Drill Jigs. — A typical example of an open drill jig, very similar to the one just developed and explained, is shown in Fig. n. The work is located against the three locating pins *A*, and held in place against these pins by the three set-screws *B*. The three straps *C* hold the work securely against



Fig. 10. Jig with Wedge for Holding the Work

the finished pad, in the bottom of the jig. These clamps are so placed that when the work has been drilled and the clamp screws loosened, the clamps will swing around a quarter of a turn, allowing the work to be lifted directly from the jig and a new piece of work inserted; then the clamps are again turned around into the clamping position, and the screws tightened. These straps are integral parts of the jig; at the same time, they are

quickly and easily manipulated, and do not interfere with the rapid removal and insertion of the work. The strength and rigidity of the feet in proportion to the jig should be noted, this strength being obtained by giving proper shape to the feet, without using an unnecessary quantity of metal.

The jig in Fig. n is also designed to accommodate the component part of the work when it is to be drilled. When this is done, the work is held on the back side of the jig, shown in Fig. 12.